

<b>Notice of Allowability</b>	Application No.	Applicant(s)	
	09/843,255	VENKATESAN ET AL.	
	Examiner	Art Unit	
	Vikkram Bali	2624	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/27/2007.
2. ☒ The allowed claim(s) is/are 1-7, 15-19, 64-65, 67-71, 73, and 75-77 (renumbered as 1-22).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application</li> <li>6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____</li> </ol> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**DETAILED ACTION**  
**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Kasey Christie, Reg. # 40,559 on 9/26/2007.

The application has been amended as follows:

Amend the claims as follows:

1. A computer-implemented method for hashing a body of text, the method comprising:

obtaining a body of text containing textual content in a computer-readable format, wherein the textual content of the obtained computer-readable formatted body of text is mutable via software tools for manipulation of textual content of bodies of text;

filtering the textual content of the body of text to remove elements of the textual content, wherein the filtering act produces filtered subtext, which is a subset of the textual content of the body of text;

formatting the filtered subtext into a defined image-based format, wherein the textual content of the defined image-based formatted filtered subtext is immutable via software tools for manipulation of the textual content of bodies of text;

deriving a hash value representative of the textual content of the filtered subtext, perceptually distinct filtered subtexts having hash values that are substantially independent of each other, wherein the deriving comprises hashing the image-based formatted, filtered subtext resulting from the formatting,

wherein the filtering further comprises removing superfluous elements from the textual content, thereby leaving a remaining textual content and re-arranging the remaining textual content into a canonical format.

2. A method as recited in claim 0, wherein perceptually distinct image-based formatted, filtered subtexts have hash values that are independent of each other.
3. A method as recited in claim 0 further comprising comparing hash values of two image-based formatted, filtered subtexts to determine if such values match.
4. A method as recited in claim 0 further comprising comparing hash values of two image-based formatted, filtered subtexts to determine if such values substantially match.
5. A method as recited in claim 4 further comprising indicating whether such values substantially match.
6. A computer comprising one or more computer-readable media ~~having~~ embedded with computer-executable instructions that, when executed by the computer, perform the method as recited in claim 0.
7. A computer-readable medium ~~having~~ embedded with computer-executable instructions that, when executed by a computer, performs the method as recited in claim 3.

8-14. (CANCELED)

15. A computer-implemented method for hashing a body of text, the method comprising:

obtaining a body of text containing textual content in a computer-readable format;

filtering the textual content of the body of text to remove elements of the textual content, wherein the filtering act produces filtered subtext, which is a subset of the textual content of the body of text;

formatting the filtered subtext into a defined image-based format, wherein the textual content of the defined image-based formatted filtered subtext is immutable via software tools for manipulation of textual content of bodies of text;

deriving a hash value representative of the filtered subtext, perceptually similar filtered subtexts having proximally similar hash values, wherein the deriving comprises hashing the image-based formatted, filtered subtext resulting from the formatting,

wherein the filtering further comprises removing superfluous elements from the textual content, thereby leaving a remaining textual content and re-arranging the remaining textual content into a canonical format.

16. A method as recited in claim 0 further comprising comparing hash value of an image-based formatted, filtered subtext to determine if such value is proximally near

Art Unit: 2624

hash values of a group of image-based formatted, filtered subtexts having proximally clustered hash values.

17. A method as recited in claim 16 further comprising grouping the image-based formatted, filtered subtext with the group of image-based formatted, filtered subtexts if the hash value of such subtext is proximally near the values of the group.

18. A computer comprising one or more computer-readable media having embedded with computer-executable instructions that, when executed by the computer, perform the method as recited in claim 16.

19. A computer-readable medium having embedded with computer-executable instructions that, when executed by a computer, performs the method as recited in claim 16.

20-63. (CANCELED)

64. A computer-readable medium embedded with computer-executable instructions that, when executed by a computer, performs the method comprising:

obtaining a body of text containing textual content in a computer-readable format, wherein the textual content of the obtained computer-readable formatted body of text is mutable via software tools for manipulation of textual content of bodies of text;

filtering the textual content of the body of text to remove elements of the textual content, wherein the filtering act produces filtered subtext, which is a subset of the textual content of the body of text;

formatting the filtered subtext into a defined image-based format, wherein the textual content of the defined image-based formatted filtered subtext is immutable via software tools for manipulation of the textual content of bodies of text;

deriving a hash value representative of the textual content of the filtered subtext, perceptually distinct filtered subtexts having hash values that are substantially independent of each other, wherein the deriving comprises hashing the image-based formatted, filtered subtext resulting from the formatting,

wherein the filtering further comprises removing superfluous elements from the textual content, thereby leaving a remaining textual content and re-arranging the remaining textual content into a canonical format.

65. A computer-readable medium embedded with computer-executable instructions that, when executed by a computer, performs the method comprising:

obtaining a body of text containing textual content in a computer-readable format, wherein the textual content of the obtained computer-readable formatted body of text is mutable via software tools for manipulation of textual content of bodies of text;

filtering the textual content of the body of text to remove elements of the textual content, wherein the filtering act produces filtered subtext, which is a subset of the textual content of the body of text;

formatting the filtered subtext into a defined image-based format, wherein the textual content of the defined image-based formatted filtered subtext is immutable via software tools for manipulation of textual content of bodies of text;

deriving a hash value representative of the filtered subtext, perceptually similar filtered subtexts having proximally similar hash values, wherein the deriving comprises hashing the image-based formatted, filtered subtext resulting from the formatting,

wherein the filtering further comprises removing superfluous elements from the textual content, thereby leaving a remaining textual content and re-arranging the remaining textual content into a canonical format.

66. (Canceled)



67. A method as recited in claim 4 further comprising indicating suspicion of plagiarism between the two filtered subtexts when the compared hash values of the two image-based formatted, filtered subtexts substantially match.

68. A method as recited in claim 0, wherein, before formatting, the textual content of the body of text comprises multiple words and sentences.

69. A method as recited in claim 0, wherein, before formatting, the textual content of the body of text comprises multiple words and sentences and the derived hash value is representative of the textual content of the body of text.

70. A method as recited in claim 0, wherein, before formatting, the textual content of the body of text comprises multiple words and sentences.

71. A method as recited in claim 0, wherein, before formatting, the textual content of the body of text comprises multiple words and sentences and the derived hash value is representative of the textual content of the body of text.

72. (Canceled)

73. A computer-implemented method for hashing a body of text, the method comprising:

obtaining a body of text containing textual content in a computer-readable format, wherein the textual content of the obtained computer-readable formatted body of text is mutable via software tools for manipulation of textual content of bodies of text;

filtering the textual content of the body of text to remove elements of the textual content, wherein the filtering act produces filtered subtext, which is a subset of the textual content of the body of text;

formatting the filtered subtext into a defined image-based format, wherein the textual content of the defined image-based formatted filtered subtext is immutable via software tools for manipulation of the textual content of bodies of text;

deriving a hash value representative of the textual content of the filtered subtext, perceptually distinct filtered subtexts having hash values that are substantially independent of each other, wherein the deriving comprises hashing the image-based formatted, filtered subtext resulting from the formatting,

wherein the filtering further comprises pseudo-randomly extracting elements of textual content for inclusion in the filtered subset, wherein the pseudo-random extraction is based, at least in part, upon a cryptographic key.

74. (Canceled)

75. A computer-implemented method for hashing a body of text, the method comprising:

obtaining a body of text containing textual content in a computer-readable format;

filtering the textual content of the body of text to remove elements of the textual content, wherein the filtering act produces filtered subtext, which is a subset of the textual content of the body of text;

formatting the filtered subtext into a defined image-based format, wherein the textual content of the defined image-based formatted filtered subtext is immutable via software tools for manipulation of textual content of bodies of text;

deriving a hash value representative of the filtered subtext, perceptually similar filtered subtexts having proximally similar hash values, wherein the deriving comprises hashing the image-based formatted, filtered subtext resulting from the formatting,

wherein the filtering further comprises pseudo-randomly extracting elements of textual content for inclusion in the filtered subset, wherein the pseudo-random extraction is based, at least in part, upon a cryptographic key.

76. A computer-readable medium embedded with computer-executable instructions that, when executed by a computer, performs the method comprising:

Art Unit: 2624

obtaining a body of text containing textual content in a computer-readable format, wherein the textual content of the obtained computer-readable formatted body of text is mutable via software tools for manipulation of textual content of bodies of text; filtering the textual content of the body of text to remove elements of the textual content, wherein the filtering act produces filtered subtext, which is a subset of the textual content of the body of text;

formatting the filtered subtext into a defined image-based format, wherein the textual content of the defined image-based formatted filtered subtext is immutable via software tools for manipulation of the textual content of bodies of text;

deriving a hash value representative of the textual content of the filtered subtext, perceptually distinct filtered subtexts having hash values that are substantially independent of each other, wherein the deriving comprises hashing the image-based formatted, filtered subtext resulting from the formatting,

wherein the filtering further comprises pseudo-randomly extracting elements of textual content for inclusion in the filtered subset, wherein the pseudo-random extraction is based, at least in part, upon a cryptographic key.

77. A computer-readable medium embedded with computer-executable instructions that, when executed by a computer, performs the method comprising:

obtaining a body of text containing textual content in a computer-readable format, wherein the textual content of the obtained computer-readable formatted body of text is mutable via software tools for manipulation of textual content of bodies of text;

filtering the textual content of the body of text to remove elements of the textual content, wherein the filtering act produces filtered subtext, which is a subset of the textual content of the body of text;

formatting the filtered subtext into a defined image-based format, wherein the textual content of the defined image-based formatted filtered subtext is immutable via software tools for manipulation of textual content of bodies of text;

deriving a hash value representative of the filtered subtext, perceptually similar filtered subtexts having proximally similar hash values, wherein the deriving comprises hashing the image-based formatted, filtered subtext resulting from the formatting,

wherein the filtering further comprises pseudo-randomly extracting elements of textual content for inclusion in the filtered subset, wherein the pseudo-random extraction is based, at least in part, upon a cryptographic key.

***Allowable Subject Matter***

2. Claims 1-7, 15-19, 64-65, 67-71, 73, and 75-77 (renumbered as 1-22) are allowed.

The following is an examiner's statement of reasons for allowance: claims 1, 15, 64, and 65, are allowed because the prior art fail to disclose, teach or suggest a method of hashing that includes formatting the filtered subtext into a defined image-based format, wherein the textual content of the defined image-based formatted filtered subtext is immutable via software tools for manipulation of textual content of bodies of text, deriving a hash value representative of the filtered subtext, perceptually similar filtered subtexts having proximally similar hash values, wherein the deriving comprises hashing the image-based formatted, filtered subtext resulting from the formatting, wherein the filtering further comprises removing superfluous elements from the textual content, thereby leaving a remaining textual content and re-arranging the remaining textual content into a canonical format, in combination of other limitations as claimed.

Claims 73, and 75-77 are allowed because the prior art fail to disclose, teach or suggest a method of hashing that includes formatting the filtered subtext into a defined image-based format, wherein the textual content of the defined image-based formatted filtered subtext is immutable via software tools for manipulation of textual content of

bodies of text, deriving a hash value representative of the filtered subtext, perceptually similar filtered subtexts having proximally similar hash values, wherein the deriving comprises hashing the image-based formatted, filtered subtext resulting from the formatting, wherein the filtering further comprises pseudo-randomly extracting elements of textual content for inclusion in the filtered subset, wherein the pseudo-random extraction is based, at least in part, upon a cryptographic key, in combination with the other limitations as claimed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

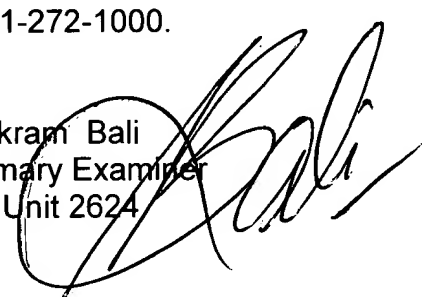
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vikkram Bali whose telephone number is 571.272.7415. The examiner can normally be reached on 7:00 AM - 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on 571.272.6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2624

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Vikkram Bali  
Primary Examiner  
Art Unit 2624



vb  
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